JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS

Volume 127, Numbers 1–2, 15 January 2001

Contents

Preface ix

G.S. Ammar, D. Calvetti, W.B. Gragg and L. Reichel
Polynomial zerofinders based on Szegő polynomials 1

B. Beckermann
Complex Jacobi matrices 17

A. Bultheel, P. González-Vera, E. Hendriksen and O. Njåstad
Quadrature and orthogonal rational functions 67

D. Calvetti, S. Morigi, L. Reichel and F. Sgallari
An iterative method with error estimators 93

R. Cools, I.P. Mysovskikh and H.J. Schmid
Cubature formulae and orthogonal polynomials 121

S. Ehrich
Stopping functionals for Gaussian quadrature formulas 153

R.W. Freund
Computation of matrix-valued formally orthogonal polynomials and applications 173

D.P. Laurie
Computation of Gauss-type quadrature formulas 201

G. López Lagomasino, H. Pijeira Cabrera and I. Pérez Izquierdo
Sobolev orthogonal polynomials in the complex plane 219

F. Marcellán and R. Álvarez-Nodarse
On the "Favard theorem" and its extensions 231

A. Martínez-Finkelshtein
Analytic aspects of Sobolev orthogonal polynomials revisited 255

0377-0427/01/$ - see front matter © 2001 Elsevier Science B.V. All rights reserved.
PII: S0377-0427(00)00692-0

G.V. Milovanović
Quadratures with multiple nodes, power orthogonality, and moment-preserving spline approximation 267

M. Mori and M. Sugihara
The double-exponential transformation in numerical analysis 287

F. Peherstorfer and R. Steinbauer
Orthogonal and L_q-extremal polynomials on inverse images of polynomial mappings 297

W. Van Assche and E. Coussement
Some classical multiple orthogonal polynomials 317

Y. Xu
Orthogonal polynomials and cubature formulae on balls, simplices, and spheres 349

Author Index Volume 127 369